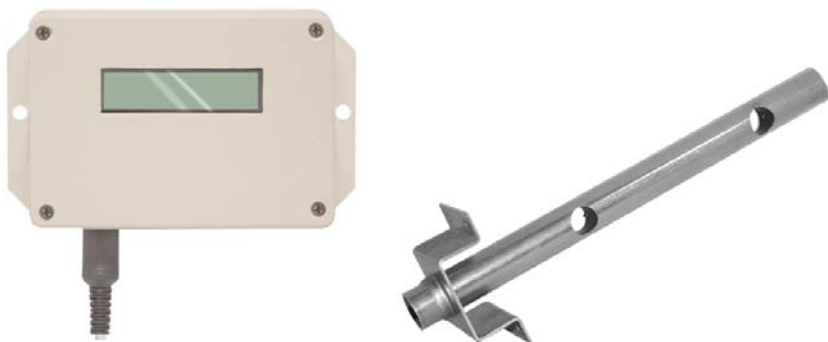


GreenFlow 1000 Series



GF-1200-A OVERVIEW

GreenTrol model GF-1200-A is a high quality economical single probe single output airflow measurement and control solution with analog air flow and programmable alarm features. It is designed for installation in specified critical applications where precise air flow measurement (down to zero flow) and alarm features are required. The GF-1200-A includes a factory calibrated probe and an advanced programmable microprocessor controlled transmitter. A simple user interface and LCD display permit selection of analog airflow measurement output and programmable alarm feature options. Airflow sensor accuracy is typically 3% of reading (4% max) from 0 to 2,000 FPM [10.16 m/s], and temperature accuracy is $\pm 0.36^{\circ}\text{F}$ [$\pm 0.2^{\circ}\text{C}$] from -20 to 160°F [-28.9°C to 71.1°C]. Probes are equipped with high reliability bead-in-glass heated thermistors, factory calibrated to volumetric airflow standards over the entire operating range. A Field Calibration Wizard feature permits field adjustment of factory calibration if required. A programmable alarm feature includes options for low/high limit and hysteresis; dead band alarm with upper/lower alarms as a percentage of flow; or as a sensor trouble alarm. The alarm condition is shown locally on the LCD display and can be configured as dry relay contacts or as an external LED driver (15mA typical). The analog output is field-configurable for 0-10VDC, 0-5VDC or 2-10 VDC (20 mA max.) for communication with virtually all modern controls and building automation systems (BAS).

APPLICATIONS

- Available in a wide range of sizes for applications where accurate monitoring/control of low airflow and temperature is required.
- Maximize system efficiency by accurately measuring and controlling airflow with a single instrument.
- Key in the acquisition of **LEED®** credits for **Energy and Atmosphere** and **Indoor Environmental Quality** when applied in OA applications.

SYSTEM FEATURES

- Advanced Thermal Dispersion (TD) technology ensures accurate, repeatable airflow measurement from zero flow (still air).
- Proprietary sensor design features high reliability bead-in-glass heated thermistors factory calibrated in wind tunnels to volumetric airflow standards for placement in more locations than other sensing technologies.
- Variable airflow signal integration to minimize airflow fluctuations (transient wind gusts) at low air flows.
- Programmable local and remote relay or LED alarms for low/high limit, and deadband.
- Versatile Field Calibration Wizard for simple field adjustment if required.
- Simple push-button user interface for simple field configuration.
- Integral bracket for simple field installation.

GF-1200-A SPECIFICATIONS

System

Sensor Accuracy*: Airflow: $\pm 3\%$ of reading typical (4% max)
Temperature: $\pm 0.36^{\circ}\text{F}$ [$\pm 0.2^{\circ}\text{C}$]
Calibrated Range: 0 to 2,000 fpm [10.16 m/s]
Operating Temperature: Sensor: -20 to 160°F [-28.9 to 71.1°C]
Xmtr: -20 to 120°F [-28.9 to 48.9°C]
Operating Humidity: 0 to 99% non-condensing; Protect transmitter from precipitation.

Programmable Modes: Air flow
Power Requirements: 24 VAC (22.8-26.4 VAC) at 8VA max

Transmitter Enclosure

Enclosure Material: Durable housing with cover
Enclosure Rating: UL94-5VA
Transmitter Dimensions: 3.570 x 6.006 x 1.502 in (HxWxD)
[90.68 x 152.55 x 38.15 mm], with integral 0.502 [12.75 mm] flanges.

Sensor Probe

Probe and Bracket: Type 6063 aluminum or Type 316 stainless steel (SS) optional
Probe Diameter: 0.75 in [19 mm]
Standard Sizes: 4 to 10 inches (101.6 to 254 mm),

in 1 inch (25.4 mm) increments
10 to 16 inches (254 to 406.4 mm),
in 2 inch (50.8 mm) increments
Probes / Sensing Nodes: 1 probe per transmitter; 1 sensing node per probe on 4 inch probes;
2 per probe from 5 to 16 inches
Probe/Transmitter Cable: 3 ft. [0.91 m] plenum rated FEP cable (optional to 50 feet [15.24m])

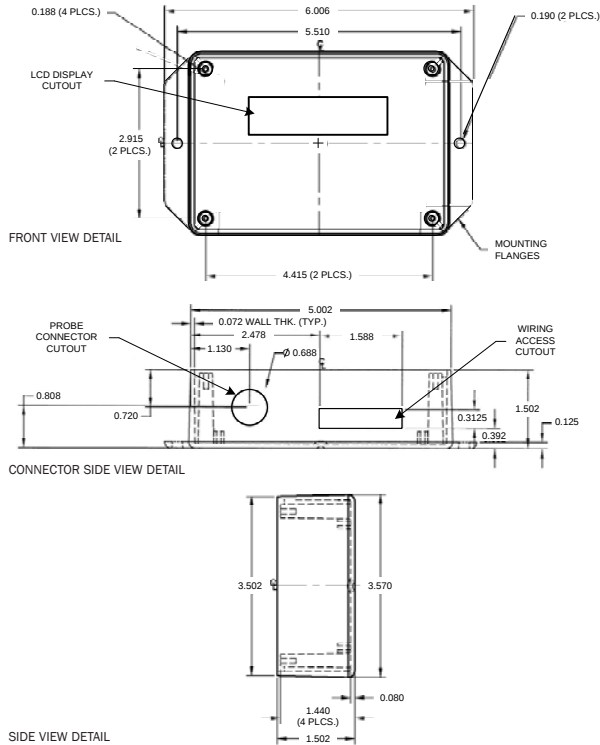
Output Interface

Analog Outputs: Single non-isolated analog 0-10VDC, 0-5VDC or 2-10 VDC (20 mA max)
Output Resolution: 0.021% of full scale (0-10/2-10VDC)
0.042% of full scale (0-5VDC)
Output Load: 500 ohm minimum (20 mA max)
Programmable Alarm: Low limit, High limit or dead band alarm (% above/below specified flow)
Alarm type: LCD indication and dry relay contacts (30VDC/24VAC @ 3 amp max) or direct LED drive (15 mA typical).
Field Cal Wizard: Simple field adjustment of factory calibration if required
Standard Warranty: 12 months

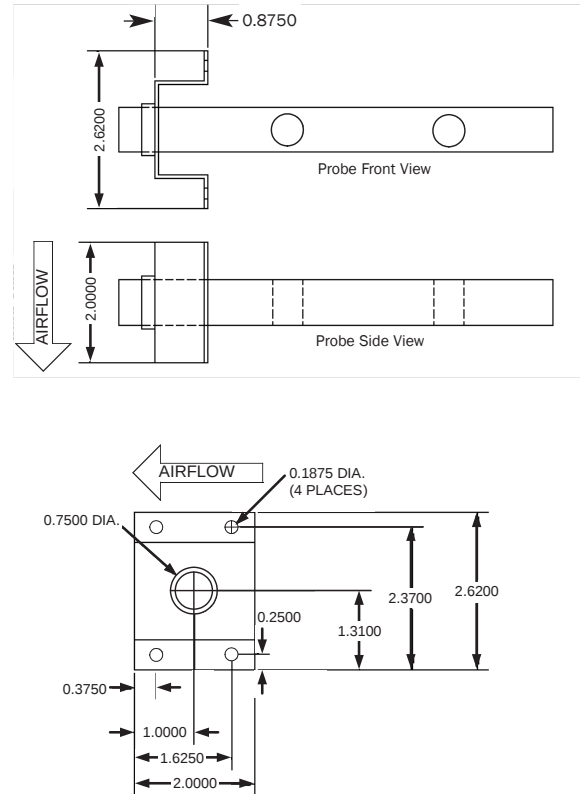
* Sensor accuracy is the accuracy of the individual sensor. Installed accuracy of the overall airflow station is application-dependent based on size and resulting sensor density and is typically better than 15% of reading.

GF-1200-A MECHANICAL DETAIL

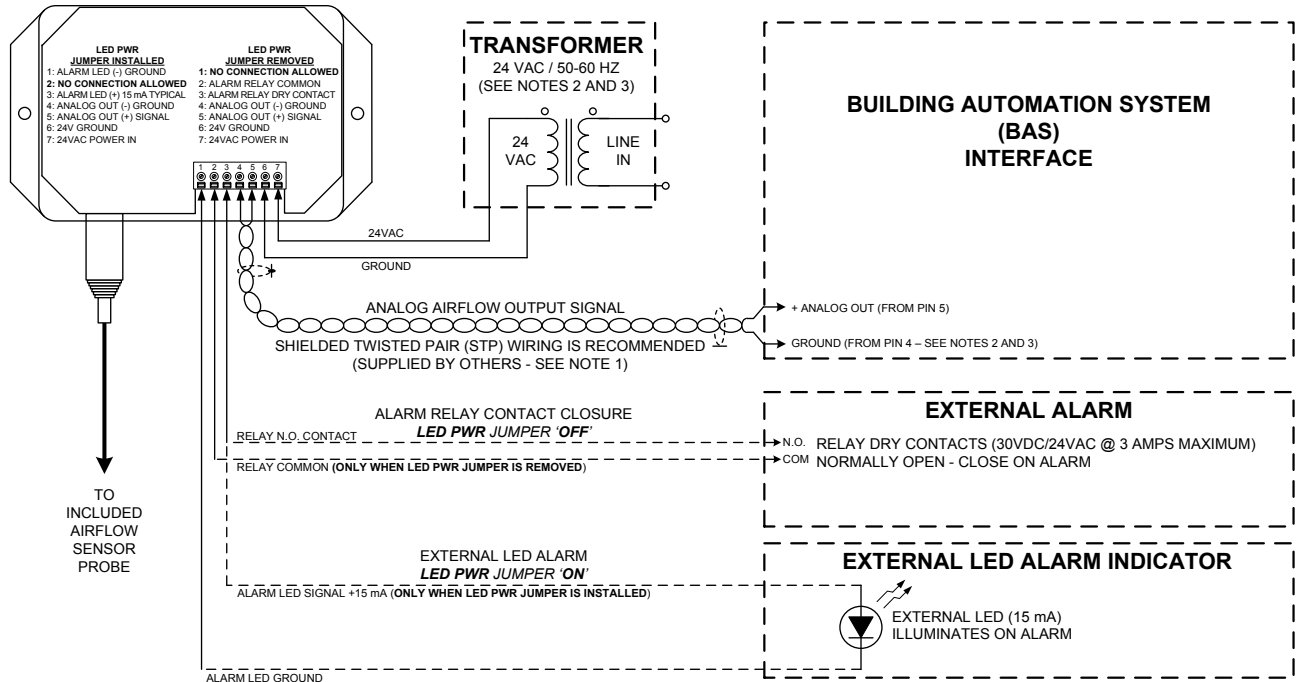
TRANSMITTER ENCLOSURE MECHANICAL DETAIL



PROBE AND BRACKET MECHANICAL DETAIL



GF-1200-A TYPICAL WIRING DIAGRAM



NOTES:

- 1: CONNECT OUTPUT SIGNAL CABLE DRAINS TO EARTH GROUND AT ONE END OF CABLE ONLY.
- 2: THE GF-1200-A IS A NON-ISOLATED DEVICE USING A HALF-WAVE RECTIFIER ON THE 24VAC POWER INPUT. IF MULTIPLE DEVICES ARE POWERED BY THE SAME TRANSFORMER OUTPUT, ALL GND CONNECTIONS MUST BE COMMON TO PREVENT DAMAGE, OR AN ISOLATION TRANSFORMER MAY BE USED.
- 3: ALL DEVICES ON MULTIPLE GF-1200-A TRANSMITTER INSTALLATIONS WITH A COMMON 24VAC SOURCE MUST BE WIRED IN-PHASE TO THE SAME TERMINALS (e.g.: PIN 6 to PIN 6, PIN 7 to PIN 7).